

7-1-7 Milestone Dates Reference Guide

Detailed definitions and examples

- This reference guide is intended for those using the 7-1-7 target, including technical staff who are tasked with identifying and recording the 7-1-7 milestone dates. It includes the definitions of the four key 7-1-7 milestone dates (dates of emergence, detection, notification, and early response action completion) as well as the seven 7-1-7 early response actions upon which the early response action completion milestone is based.
- Examples are provided for how the dates may be determined based on various factors such as type of event, surveillance system, or scenario for notification. Examples of actions for each of the seven early response actions are also provided; note that this list is not comprehensive but should provide a sense of what constitutes each early response action.

Date of emergence

The date of emergence varies by how the disease type is classified in the country/jurisdiction:

- Endemic diseases: the date when a predetermined increase in case incidence over baseline rates occurred (e.g., IDSR alert thresholds).
- Non-endemic diseases: the date when the index case or first epidemiologically-linked case experienced symptoms.
- Other health threats: the date the threat first met criteria as a reportable event, based on existing reporting standards.

Note that the date of emergence is often unknown when an outbreak is first detected. Epidemiologic information gathered during the outbreak investigation should be used to determine the date, based on the information available. The date may change as more is learned (e.g., earlier cases are identified).

Event type	Example of date of emergence
Endemic disease (e.g., malaria)	Malaria alert thresholds are incidence-based in country X, with outbreaks declared at the district level. On epidemiologic week 32 (Sunday to Saturday), malaria cases surpassed the alert threshold in district Y. Because data are aggregated and analyzed weekly, the last day of epidemiologic week 32 (Saturday) would be the date of emergence of the malaria outbreak in district Y.
Non-endemic disease (e.g., Ebola virus disease [EVD] in a human)	The date of outbreak emergence would be the date when the index case or first epidemiologically-linked case first experienced a symptom of EVD.
Other health threats (e.g., contaminated food product)	The date of outbreak emergence would be the earliest date of onset of symptoms among persons exposed to the contaminated product.

Date of detection

The date of detection is the date the outbreak was first recorded by any source or in any system. The sources and systems should be clinical or related to public health. Detection may happen at the community or health facility level, through a lab, through the surveillance system, or elsewhere.

For indicator-based surveillance, the date of detection would be when case or incidence data were recorded (e.g., in a logbook, case investigation form, laboratory requisition form). For event-based surveillance (EBS), the date of detection would be when the event information was first recorded (e.g., detected by a media scanning system, recorded by a community health worker, recorded by a hotline operator).

Note that for 7-1-7, date of detection is not based strictly on lab confirmation; it can be based on suspicion of the event (e.g., entry in a logbook, laboratory requisition form, record by community health worker). Lab confirmation is included as an early response action in 7-1-7. However, in contexts where the definition of a notifiable event is a confirmed case, lab confirmation may come before or on the same date as the date of detection.

Detection type	Example of date of detection
Indicator-based surveillance of endemic disease (e.g., aggregate data for malaria cases)	Malaria alert thresholds are incidence-based in country X, with outbreaks declared at the district level. On epidemiologic week 32 (defined as Sunday to Saturday), malaria cases surpassed the alert threshold in district Y. Because the district aggregated the data the following Monday and recorded that the incidence threshold was exceeded on that day, Monday would be the date of detection of the malaria outbreak in district Y.
Indicator-based surveillance of non-endemic disease (e.g., case of Lassa fever detected in a health facility)	The date of detection would be the date that the health facility recorded a suspected Lassa fever case in any system. Most frequently this occurs or is documented by the completion of a case investigation form or laboratory requisition form but may also be indicated in the clinical chart.
Event-based surveillance (e.g., media scanning)	A measles outbreak has been occurring in state Z for three weeks, but nobody has been aggregating or analyzing the data to record that an outbreak has started. A local newspaper reports on a cluster of deaths among children likely due to measles, which is then picked up by an EBS analyst at the national public health institute. The date of detection of the outbreak would be the date this event was recorded by the EBS analyst.
Event-based surveillance (e.g., community event-based surveillance)	A community health worker notices acute flaccid paralysis in a young child on a home visit. The date of detection is the date that the community health worker recorded the suspected polio case (e.g., in a logbook, a mobile application, an investigation form).

Date of notification

The date of notification is the date the event is first reported to a public health authority responsible for action.

Oftentimes, the most immediate public health jurisdiction (city, district) will be the public health authority responsible for action and the first public health authority to be notified. Notification of responsible health authorities could be from a clinical setting to a district surveillance officer. In the case of event-based surveillance or when outbreaks are detected centrally, notification to a responsible authority might be from the central level to the subnational level.

For countries that require notification of reportable events to multiple levels of government that are tasked with different actions, the earliest date that any of these public health authorities were notified would be the date of notification. In some guidance, this step may be referred to as 'reporting' to a public health authority or district health team.

This step should not be confused with notification to WHO as defined by the International Health Regulations (2005), which is typically only done after local or national public health authorities have become aware of an event.

Notification scenario	Example of date of notification
Event detected by aggregate indicator-based surveillance	Date when the analyst or surveillance officer notified the outbreak to a member of the team responsible for investigation or public health response.
Event detected by a health worker	<p>Date when a clinician or facility surveillance focal point contacted the public health department or local surveillance officer to inform them of a suspected case.</p> <p>Note: if the facility detected the case and sent the specimen to a lab but did not contact the public health department or local surveillance officer, and public health authorities only became aware of the specimen when the laboratory result became available, the date the public health authorities received the laboratory result would constitute the date of notification.</p>
Event detected by a community health worker	Date when the event was reported to a public health authority responsible for action. If a community health worker reported the result to a surveillance officer or public health department directly, this would be the date of notification. If a community health worker reported the event to a health facility, the date of notification is when the health facility notified the event to the surveillance officer or public health department.
Event detected by a central media scanning unit	Date when the central media scanning unit or EBS program notified the public health authorities at the jurisdiction level responsible for investigating or responding to the event.

Date of early response action completion

The date of early response action completion is the latest date on which all applicable 7-1-7 early response actions have occurred:

1. Initiate investigation or deploy investigation/response team;
2. Conduct epidemiologic analysis and initial risk assessment;
3. Obtain laboratory confirmation of the outbreak etiology;
4. Initiate appropriate case management and infection prevention and control (IPC) measures in health facilities;
5. Initiate appropriate public health countermeasures in affected communities;
6. Initiate appropriate risk communication or community engagement activities;
7. Establish a coordination mechanism.

As shown in the Assessment Tool ([Word/PDF](#)), the dates for each of these separate early response actions should be recorded, and the date of early response action completion recorded as the last of these dates. Note that most of the 7-1-7 early response actions are focused on initiating rather than completing an action (e.g., if vaccine rollout begins on May 5 and ends on May 20, the date for “Initiate appropriate public health countermeasures in affected communities” would be May 5).

All seven early response actions may not be applicable for some outbreak events. For example, an event that is determined to be low risk may not require public health countermeasures or risk communication. For events where some early response actions are not applicable, the latest date among the applicable actions should be used as the date of early response completion. “NA” should be recorded in the data collection platform for these to differentiate them from early response actions with missing data.

The table below includes some examples for each of the seven 7-1-7 early response action categories. The examples are not a comprehensive list, and disease-specific guidance should be followed when implementing actions. If multiple actions are taken within one category, the earliest date should be used for the purposes of 7-1-7.

Early response actions	Examples (the earliest date should be used for 7-1-7 purposes) Note: these examples are not comprehensive
Initiate investigation or deploy investigation/response team	<ul style="list-style-type: none"> • Date public health authorities (e.g., district, county, state, national) initiated an investigation of a suspected outbreak or in response to a signal. • Date a rapid response team was deployed.
Conduct epidemiologic analysis and initial risk assessment	<ul style="list-style-type: none"> • Date when the first results of the epidemiologic analyses were reported. • Date the risk assessment was completed and communicated. • Date when the first situation report was published, and the risk assessment level was indicated.
Obtain laboratory confirmation of the outbreak etiology	<ul style="list-style-type: none"> • Date when laboratory confirmation of the pathogen was completed and communicated.

	<ul style="list-style-type: none"> • Date when the etiology of a toxicological or chemical poisoning event was confirmed and communicated.
Initiate appropriate case management and infection prevention and control (IPC) measures in health facilities	<ul style="list-style-type: none"> • Date when facility IPC assessments were initiated in affected health facilities (in the case of highly-infectious pathogens this should occur as soon as possible). • Date when appropriate/disease-specific case management procedures were assessed and implemented at affected health facilities. • Date when IPC or case management training was initiated at all affected health facilities. • Date when appropriate therapeutics, vaccines, or personal protective equipment was distributed to health facilities. • Date when known cases were transferred to a specialty center or isolation unit with capacity for case management and IPC for the etiology.
Initiate appropriate public health countermeasures in affected communities	<ul style="list-style-type: none"> • Date when procurement or distribution of commodities to prevent outbreak spread in communities was initiated (e.g., vaccines, ORS sachets, antimicrobial agents, water treatment, soap, insect repellants, bed nets, or personal protective equipment). • Date when a food recall or boil water advisory was announced. • Date when a public health or social measure was instituted (e.g., masking, travel restrictions, or quarantine).
Initiate appropriate risk communication and community engagement activities	<ul style="list-style-type: none"> • Date when a local or public health official announced the outbreak to the public. • Date when messaging to reduce risk or prevent spread was published or communicated. • Date when two-way dialogue with communities was initiated. • Date when community sentiment or knowledge, attitudes, or perceptions of the event were assessed. • Date when community health workers (if applicable) were involved in the response.
Establish a coordination mechanism	<ul style="list-style-type: none"> • Date when an incident management system (IMS) was activated. • Date when the emergency operations center (EOC) was activated. • Date when a task force or technical working group was initiated. • Date when an incident action plan was drafted.